

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Mercure et al.

Serial No.: 09/263,186

Filed: March 5, 1999

For: Reinforced Shrink Wrap and Method of  
Manufacture§  
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Group No.: 1771

Examiner: U. Ruddock

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23183  
PHEBox CPA  
Assistant Commissioner for Patents  
Washington, DC 20231

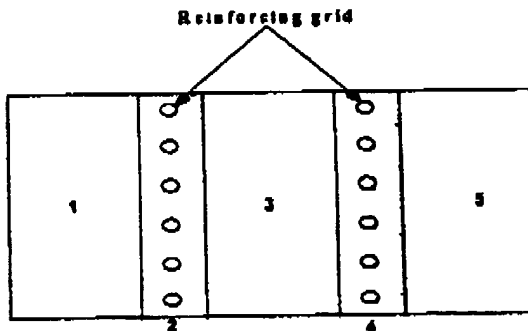
Dear Sir:

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I hereby certify that this paper, including the documents referred to therein, or fee is being deposited with the U. S. Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to the Assistant Commissioner for Patent, Box CPA, Washington, DC 20231	
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DECLARATION OF MR. DENNIS J. OLHEISER  
UNDER 37 C.F.R. § 1.132

I, Dennis J. Olheiser, am an inventor of the above-referenced patent application. I have measured or caused the measurement of the peel strength of various 5-ply shrink laminates. The average peel strength of 5-ply shrink laminates with tie layers is about 70 oz., whereas the average peel strength of 5-ply shrink laminates with adhesive layers is about 25 oz.

The 5-ply shrink laminates have a cross-sectional structure illustrated in the following. The exemplified structure is one possible construction of a shrink laminate and should not be construed to limited the invention as otherwise described in the patent application.



All shrink laminates have a thickness in the range of about 4 mils to about 14 mils. A typical 5 ply construction, as illustrated above, comprises an outer thermoplastic film layer (1), a tie layer or adhesive layer (2) with a reinforcing grid, a highly irradiated polyolefin shrink film (3), a tie layer or adhesive layer (4) with a reinforcing grid, and an inner thermoplastic film layer (5).

Layers 2 and 4 are either adhesive layers or tie layers. The adhesive layers are made from a water based acrylic pressure sensitive adhesive, whereas the tie layers are made from low modulus polyolefin resins. Typically, the adhesive layers or tie layers have a thickness of about 0.5 to 1.5 mils thick. The shrink laminates with adhesive layers were made in accordance with the method disclosed in U.S. Patent No. 5,328,743. The shrink laminates with tie layers were made in accordance with the processes described in the above-referenced patent application.

The peel strength of each shrink laminate was obtained in accordance with ASTM D-1876, which is the standard test method for peel resistance of adhesives (T-peel test). A copy of the ASTM D-1876 testing procedures is attached herewith as Appendix A. Generally, the test is conducted by taking one inch wide by twelve inch long samples of a laminated product. A small section of the laminate is separated by hand to allow sufficient material to be secured in the grips of a tensile testing machine. One edge of the separated section is secured in the upper grips and the remaining section of the laminate is secured in the lower grips. The bottom grip is fixed, and the upper grip is moved at a rate of 10 inches per minute.

About 15 shrink laminates with adhesive layers produced over a two month period were tested and the average peel strength of the 5-ply shrink laminates with adhesive layers was about 25 oz. On the other hand, about 30 shrink laminates with tie layers produced over a two month period were tested, the average peel strength of the 5-ply shrink laminates was about 70 oz. The data show that a tie layer has a higher lamination strength than an adhesive layer in a multi-layered shrink laminate.

I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by

fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of any application for which it is used.

3/26/2001  
Date

Dennis J. Olshaker  
Dennis J. Olshaker